ROCK INLET SEDIMENT TRAP TYPE-A 1632.01

A Rock Inlet Sediment Trap Type A (RIST-A) is a 'doughnut-shaped' stone dam device constructed around a drop inlet structure. There is a built-in sediment storage area around the outside perimeter of the structure. The RIST-A should be used at drop inlets that have a large drainage area and/or receive high velocity water flow. The RIST-A utilizes class B stone lined with sediment control stone to detain sediment-laden water and settle the sediment particles, preventing them from entering the drop inlet. The RIST-A can be modified to accommodate a drop inlet receiving water from only one direction. A silt basin can be constructed adjacent to the device to increase the sediment storage capacity when the drop inlet is in a ditch location.

AREAS OF USE:

- At drop inlets that receive heavy flow from one or more than one direction.
- At least 30 feet from a vehicular travel lane, in order to prevent a safety hazard.

DESIGN CRITERIA:

- If the drainage area exceeds 1 acre, then a Silt Basin B is needed in conjunction with the RIST-A.
- The stone dam should be a minimum of 2 feet high.
- The top elevation of the RIST-A shall be a minimum of 12 inches lower than the ground elevation downslope from the inlet.
- Because of the stone dam, the RIST-A should be placed at locations that will not create a safety hazard.

CONSTRUCTION SPECIFICATIONS:

- Class B stone installed in a 'doughnut-shaped' ring around the inlet, with a 1.5-foot wide berm on the top and a minimum of 2 feet in height.
- There should be 1.5 feet from the inside edge of the stone dam and the edge of the inlet.
- Sediment control stone installed on the outer face of the stone dam in a layer 1-foot thick.
- The top of the RIST-A berm shall be a minimum of 1 foot below the shoulder or any diversion point.

MATERIAL SPECIFICATIONS:

- Structural stone shall be class B stone that meets the requirements of Section 1042 of the Standard Specifications for Stone for Erosion Control, Class B.
- Sediment control stone shall be #5 or #57 stone, which meets the requirements of Section 1005 of the Standard Specifications for these stone sizes.

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PAYMENT:

- Installation of measure:

Stone for Erosion Control, Class B	Ton
Sediment Control Stone	Ton

- Silt cleanout of device:

Silt Excavation	Cubic Yard

MAINTENANCE:

- Inspect the device after each significant rainfall event for damage and sediment accumulation, to insure the device is functioning properly.
- Remove sediment from the device when accumulations reach one-half of the storage capacity formed by the device.
- Replace or clean the sediment control stone as needed to allow water to drain through the device between rainfall events.
- Rebuild and/or repair the device when it is damaged.

TYPICAL PROBLEMS:

- Sediment accumulations are not removed in a timely fashion, causing sediment to be released into the storm drain system.
- Sediment control stone is not cleaned and becomes clogged, preventing proper drainage.
- The device is not rebuilt or repaired when it is damaged by storms, equipment, etc.
- The device is not built wide enough to prevent water from washing around the device. Water should always flow through or over the device, not around.